Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended) A method of controlling a battery management unit, comprising:

receiving a sequence of pulses ~~from~~ using a serial port ~~corresponding to~~, the sequence of pulses consistent with a serial protocol; and

interpreting the received sequence of pulses ~~received~~ according to the serial protocol,

wherein the serial protocol defines a set of battery management commands based at least on a number of pulses in the sequence; ~~and transmitting a~~ the received sequence of pulses comprises a battery management unit command, the command operable to control components within a battery management unit; and the serial port consists of a single conductor.

Claim 2 (original) The method of claim 1, wherein the pulse width for each pulse in a signal is substantially the same.

Claim 3 (previously presented) The method of claim 1, wherein the time duration between signals is at least two times longer than a width of a pulse.

Claim 4 (original) The method of claim 1, wherein a zero signal corresponds to a sequence of two pulses.

Claim 5 (original) The method of claim 1, wherein a one signal corresponds to a sequence of three pulses.

Claim 6 (original) The method of claim 1, wherein an acknowledge signal corresponds to a sequence of four pulses.

Claim 7 (original) The method of claim 1, wherein a start signal corresponds to a sequence of five pulses.

Claim 8 (previously presented) The method of claim 1, wherein each pulse in the sequence remains low for a same time interval.

Claim 9 (previously presented) The method of claim 1, wherein each pulse in the sequence remains high for a same time interval.

Claim 10 (currently amended) A serial apparatus used to transmit and receive commands for a battery management unit, the serial apparatus comprising:

a port operable to ~~send~~ transmit and receive ~~pulses over~~ commands using a single conductor, each command comprising a sequence of pulses; and

serial interface logic compatible with a serial protocol and operable to ~~generate and~~ detect ~~a sequence~~ sequences of pulses on the port, interpret the ~~sequence~~ sequences of pulses according to the serial protocol to determine corresponding battery management unit commands, and ~~transmit a~~ provide the corresponding battery management unit ~~command~~ commands to a controller.

Claim 11 (previously presented) The apparatus of claim 10, wherein the pulse width for each pulse in a signal is substantially the same.

Claim 12 (previously presented) The apparatus of claim 10, wherein the time duration between signals is at least two times longer than a width of a pulse.

Claim 13 (previously presented) The apparatus of claim 10, wherein a zero signal corresponds to a sequence of two pulses.

Claim 14 (previously presented) The apparatus of claim 10, wherein a one signal corresponds to a sequence of three pulses.

Claim 15 (previously presented) The apparatus of claim 10, wherein an acknowledge signal corresponds to a sequence of four pulses.

Claim 16 (previously presented) The apparatus of claim 10, wherein a start communication signal corresponds to a sequence of five pulses.

Claim 17 (currently amended) A method of controlling a battery management unit, comprising:

transmitting a start command corresponding to a sequence of pulses to a battery management unit through a serial port;

receiving ~~an~~ a first acknowledgement sequence of pulses from the battery management unit;

transmitting a command byte and an address associated with a byte of data to be accessed in memory to the battery management unit through the serial port as a sequence of pulses corresponding to a serial protocol; and

receiving ~~an~~ a second acknowledgement sequence of pulses from the battery management unit.

Claim 18 (previously presented) The method of claim 1, wherein a battery management unit command includes read/write commands, arithmetic commands, and interrupt commands.

Claim 19 (previously presented) The apparatus of claim 10, wherein a battery management unit command includes read/write commands, arithmetic commands, and interrupt commands.

Claim 20 (new) A battery management integrated circuit comprising:

a serial port consisting of a single conductor;

a serial interface logic circuit coupled to the serial port; and

a controller coupled to the serial interface logic circuit.

Claim 21 (new) The integrated circuit of claim 20 wherein the serial port receives a first signal, the first signal transitioning between a first level and a second level, the first signal comprising a first battery management command.

Claim 22 (new) The integrated circuit of claim 21 wherein the serial interface logic circuit interprets the first signal, determines the first battery management unit command, and provides the first battery management command to the controller.

Claim 23 (new) The integrated circuit of claim 22 wherein the first signal transitions from the first level to the second level a first number of times for a first duration then remains a the first level for at least a second duration for each logic zero in the signal, and the first signal transitions from the first level to the second level a second number of times for the first duration then remains at the first level for at least the second duration for each logic one in the signal.

Claim 24 (new) A battery management integrated circuit comprising:

a serial port configured to transmit and receive signals using a single conductor;

a controller configured to provide and accept commands; and

a serial interface circuit coupled between the serial port and the controller and configured to accept commands from the controller and provide signals for transmission by the serial port, and to accept signals from the serial port and provide commands to the controller.

Claim 25 (new) The integrated circuit of claim 24 wherein the signals transition between a first level and a second level, the signals transition from the first level to the second level a first number of times for a first duration then remain a the first level for at least a second duration for each logic zero in the signals, and the signals transition from the first level to the second level a second number of times for the first duration then remain at the first level for at least the second duration for each logic one in the signal.